

streams which have alpine sources. No doubt fine fish of this species are captured in the Nerbudda, Kistna, Godavery, and other rivers of the plains; but the largest supply exists in the Ganges and Jumna, or those descending from the Himalayas. The rivers which have their origin in the Himalayas have, exclusive of springs, two great sources of replenishment:—first (during the hot months), from the melting of the ice and snow near their sources; secondly, by the rains which during the monsoon-time assist in and increase this melting.

The breeding-season is during the moonsoon-months, when the rains occasion sudden floods in the hill-streams, at which period their subsidence is often as rapid as their rise; consequently fishes ascending to breed have to complete that operation as quickly as practicable, or a sudden subsidence of the river may cut off their return to the plains. Whether due to some deleterious action of snow-water, or more probably to the force of these snow-fed currents, Indian Carps, as a rule, do not deposit their ova in the main stream, but in the side affluents. Having effected this, the parent fish rapidly descends to the main river, and that of course before the appearance of the fry. The young fish are rarely hatched out in sufficient time to be able to descend to the rivers of the plains, and are consequently detained until the next floods, when they are stronger and more able to avoid their persecutors than they would be if they entered the main stream immediately they were hatched. Their growth is at first slow, probably from want of sufficient nourishment; but on the return of the rains they rapidly increase in size, and then descend to the main rivers.

Remarks on the Insects of Kerguelen's Land*.

By H. N. MOSELEY, M.A., Naturalist to H.M.S. 'Challenger.'

"THE insects we found at Kerguelen were two apterous flies, one as large as a house-fly, the other almost as big as a blow-fly, an apterous gnat (*Culex*) and a winged gnat, a small apterous (or rather very short-winged) moth, two or three beetles (*Curculio* and *Staphylinidæ*), and three or four spiders (*Saltici* and a *Trombidium*).

"The moth I found crawling upon the beds of the little *Juncus*. The gnats are to be found about the dead seaweed &c. on the seashore. The larger fly nestles at the base of the leaves of *Pringlea*,

* This communication is an extract from a letter addressed to Dr. Hooker, chiefly concerning the Plants of Kerguelen, and already published by the Society in their Journal, Botany, No. 82, vol. xv. p. 53. Its zoological bearings, however, may there be lost sight of; hence its present reproduction.—ED.

and lays its eggs in the fluid which is caught there. I never found it elsewhere; but there it is extraordinarily abundant, and every cabbage yielded ten or a dozen specimens. The fly creeps in a slow, lazy manner. I am very sorry I did not observe whether it climbs to the inflorescence in sunshiny weather; perhaps this may be the case. This is an instance of one of those "neglected opportunities" to which you refer (in the 'Flora Antaretica') as so galling in the retrospect. Even at Heard [Yong] Island I found the same apterous fly nestling on *Pringlea* in abundance. Perhaps the two forms have some relation of mutual benefit."

Note on *Arctomys dichrous*. By JOHN ANDERSON, M.D., F.L.S., &c.

[Read May 4, 1876.]

(PLATE XXXI.)

In a preliminary notice on some new Asiatic Mammals and Chelonia, published by me last year*, I very briefly referred to a few specimens of Marmot obtained in the mountainous country to the north of Kabul, and which appeared to me to offer peculiarities entitling them to specific distinction. Since then my attention has been called to a paper by Mr. Blanford † on the Marmots of the Himalayan range. I am induced, therefore, to lay before the Linnean Society some additional memoranda on my species *Arctomys dichrous*, and place at the disposal of the Council a figure illustrating the animal in question.

Mr. Blanford (*l. c.*) gives a succinct epitome of the history of the nomenclature and synonymy of the Himalayan and Tibetan Marmots, and expounds and criticises all the published data concerning the supposed species from the above regions. A study of skins and skulls in the Indian Museum, Calcutta, and some comparisons of other material incline him to consider that there are four species, possibly a fifth (with that mentioned by myself). Those best characterized he gives as under-mentioned, and he suggests my *A. dichrous* as probably the form indicated by Burns and Griffith, while *A. robustus*, M.-Edw., he sinks in *A. himalayanus*, Hodg.

Sect. I. Short-tailed Marmots, having the tail less than one third the length of the head and body. 1. *A. himalayanus*, Hodgson.

Sect. II. Marmots with tails one third or more than one third the length of the head and body. 2. *A. hemachalanus*, Hodgson. 3. *A. caudatus*, Jacquemont. 4. *A. aureus*, Blanford.

My intention here, however, is not to discuss the conclusions arrived at by Mr. Blanford, but, in giving a more detailed description of *A. dichrous*, to enable comparison to be made between it and his *A. aureus*.

With regard to the size of the Kabul Marmot (*A. dichrous*), I had formerly incidentally mentioned the body as being 17 inches, and tail 6½ inches long. These were measurements taken roughly in a straight line. I now, in the subjoined tabular form adapted from Mr. Blanford's paper, give more exact data, in inches and decimals, from the specimen in the British Museum, and corresponding to those of *A. aureus* given by him (*l. c.* p. 123).

* Ann. & Mag. Nat. Hist. 1875, (ser. 4) vol. xvi. p. 282.

† "On the Species of Marmot inhabiting the Himalaya, Tibet, and the adjoining Regions," by W. T. Blanford, F.R.S., F.Z.S. (Journ. Asiat. Soc. Beng. 1875, pt. 2, no. 3, vol. xlv. pp. 113-127).